

REMARKS

Claim 1 has been amended to overcome the rejections under 35 USC 102, 103 and 112 respectively.

Reconsideration of the application is respectfully requested for the following reasons:

Rejection of claims 1-3, and 5 under 35 U.S.C. 102(b) as being anticipated by Nishida (US Patent 5,897,673) is respectfully traversed.

By way of review, the present invention, as defined in the amended claim 1, claims a refrigerator which is provided with a finish material containing nanosilver particles for antibacterial functioning therein.

Nishida is directed to providing fine silver particles-containing fibers which can be produced with ease at low costs for use as non-woven fabric, woven fabric, knitted fabric and paper (see column 22, lines 23–56). The usages of fibers in Nishida exemplify filters, clothing, bedding, masks, shorts, tissue, car seats, toilet covers and linings for refrigerator and trash cans (see column 22, line 58 – column 23, line 6). In contrast, the finish material of the present invention constitutes, e.g., a food storage compartment, a storage vessel, a pocket and a part constituting an air circulation duct, which are obviously solid material as opposed to flabby textile fibers such as disclosed in Nishida.

Most importantly, the present invention claims a refrigerator having a finish material containing antibacterial nanosilver particles, while Nishida is related to the manufacture of fibers of nanosilver and suggests as a utility to produce a liner

for a refrigerator which would necessarily be a liner of a textile fabric of fibers and not a finish material constituting at least one part of a selected component of the refrigerator much less of a specified size and concentration.

Accordingly, it is respectfully submitted that the amended claim 1 is not anticipated by Nishida. It is also believed that claims 3 and 5, directly depending on claim 1, are allowable for the same reasons indicated with respect to the amended claim 1.

Rejection of claim 4 under 35 U.S.C. 103(a) as being unpatentable over Nishida is respectfully traversed.

Applicant respectfully submits that claim 4 is dependent claim which depends on claim 1 and is allowable for the same reasons indicated above with respect to the amended claim 1. Nishida teaches a liner not a selected component of the refrigerator much less having specified characteristics.

Rejection of claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over Fontenot in view of Nishida.

Applicant wishes to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP §2143. This section states that to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art

reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Section 2143.03 states that all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 USC 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5USPQ2d 1596 (Fed. Cir. 1988).

Examiner rejects claims 1-5 as being unpatentable over Fontenot in view of Nishida. By way of review, the present invention, as defined in the amended claim 1, is directed to a refrigerator comprising a finish material for a selected component thereof which contains antibacterial nanosilver particles. The nanosilver particles is limited to a size of about 15–300 nm and a concentration of about 1–500 ppm by weight of the finish material. As described in the specification of the present application (see page 2, line 26 to page 3 line 5), by reducing the size of the nanosilver particles, the same antibacterial ability can be achieved at much lower concentration, thereby entailing a significant reduction in the production cost while maintaining a target antibacterial ability. Further, by the small size thereof, scratches to the surfaces of an injection mold are much less likely to occur.

In contrast, Fontenot teaches dividing the container liner into an absorbent layer and a liquid-impervious layer for the purpose of providing absorbability while preventing spilled liquid from adversely affecting other parts of the refrigerator. Fontenot is totally silent as regards nanosilver particles to provide antibacterial function much less that the solution of a certain size range and concentration maximizes the antibacterial function. Accordingly, it is absolutely clear that Fontenot fails to teach a use of the nanosilver particles much less within the instantly claimed size range for the purpose of obviating those problems of the prior art such as a high cost in producing the refrigerator having nanosilver.

Nishida is directed to providing the fibers containing nanosilver particles. However, as discussed above, the finish material of the present invention constitutes, e.g., a food storage compartment, a storage vessel, a pocket and a part constituting an air circulation duct, which are obviously solid material as opposed to flabby textile fibers such as disclosed in Nishida. Therefore, Nishida addresses a completely different material composition which cannot be used to provide for support function to represent the finish material of the present invention.

Furthermore, Examiner's hindsight combination of Fontenot and Nishida is believed entirely improper in the absence of any suggestion, teaching or motivation given in any of the prior art references to do so, and in as much as one skilled in the art would have no reason to make such combination. In the present invention, the key inventive concept lies in that it remedies the high cost in producing the same while that in Fontenot is to provide an absorbent liner. As the inventive concepts are completely different, one of ordinary skill in the art would have no reason to make such combination.

Even assuming, for argument's sake, that such combination were proper, such combination still cannot render the present invention obvious because structure in Fontenot would remain unchanged and the difference between such combination and the present invention cannot be cured simply because the absorbent layer is provided with the nanosilver particles.

Accordingly, it is respectfully submitted that the amended claim 1 defines a patentable invention over the prior art references, including Nishida and Fontenot. It is also believed that claims 3-5, directly depending on claim 1, are allowable for the same reasons indicated with respect to the amended claim 1.

Provisional rejection of claims 1-5 under obviousness-type double patenting over claims 1 and 3 of copending Application No. 10/618,241.

Applicant is filing a terminal disclaimer to overcome this rejection.


CONCLUSION

Applicant believes that this is a full and complete response to the Office Action. For the reasons discussed above, Applicant now respectfully submits that all of the pending claims are in complete condition for allowance. Accordingly, it is respectfully requested that the Examiner's rejections be withdrawn and that claims 1-5 be allowed in their present form.

Should the Examiner require or consider it advisable that the specification, claims an/or drawings be further amended or corrected in formal respects, in order to place the case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case be passed to issue.

Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully submitted,
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MAILING CERTIFICATE

I hereby certify that this AMENDMENT is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Mail Stop: AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 21, 2004.


Audrey de Souza